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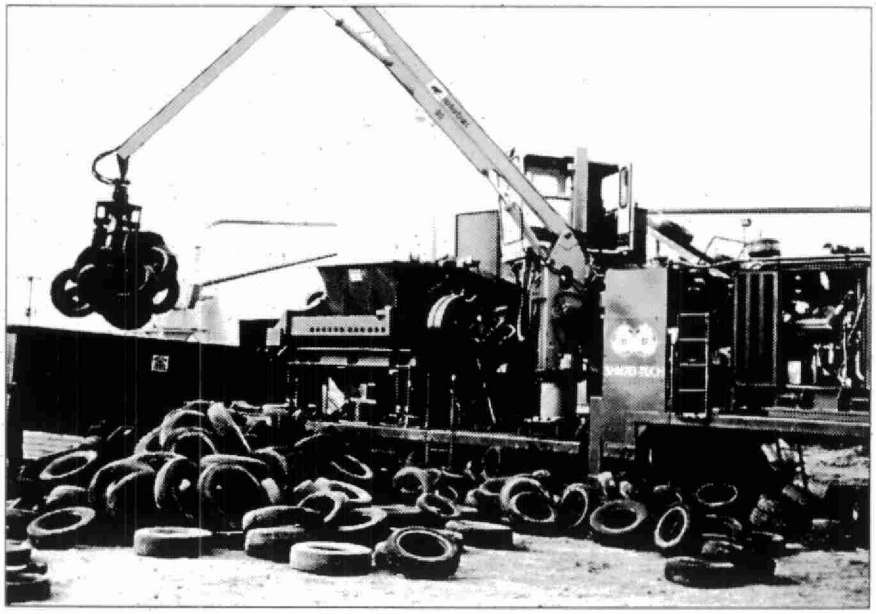
Ontario

The Mobile Tire Shredding System

"Shred-Tech is a Canadian company committed to providing cost effective solutions to the waste industry in the most environmentally and socially responsible method possible. We are committed to research and development and use it to fuel growth. We continue to reinvest up to 10 per cent of our sales into research and development. Through these endeavors we have expanded our sales to meet the demands of the global markets. Exports represent more than 80 per cent of our sales. We work with our customers to make the best machine possible, and put our expertise to meeting the changing needs of the processing and recycling industries."

Robert Glass
Sales Manager, Shred-Tech Limited
Cambridge, Ontario



Shred-Tech mobile tire shredding system.

THE COMPANY

Shred-Tech designs and manufactures carpet, paper and tire shredding machines as well as systems which reduce plastic scrap, industrial waste, medical waste and hazardous waste drums either for disposal or for processing. Materials such as soap, sugar, cereal, cosmetics, tea bags and pharmaceutical products as well as milk and juice cartons are reduced and separated for recovery, recycling or disposal.

Shred-Tech's research and development over the past several years is now paying off. The company's security document destruction trucks are already a success story and its carpet recycling and mobile tire shredding systems are following suit. The company's goal is to stay in the lead with innovative ideas and new products.

THE TECHNOLOGY

In a world with a growing population and declining resources, the challenge is to reduce the amount of waste going to landfill sites. Shred-Tech's mobile tire shredding system will help municipalities and industries deal with the problem of discarded tires in two ways. First, the system shreds them and second, it does so on site. That saves money because shredded tires are cheaper to transport. Further, the tires are in a form which recyclers find easier to use.

Rubber reclaimed from the tires may be used as filler in the making of rubberized asphalt and to make stable mats and rubber mats. Rubber reclaimed from tires may also be used as fuel for high energy users such as cement plants.

RESULTS

The company made the following advances in its mobile shredding system:

* the transport trailer was brought up to government standards for highway driving;
* maintenance costs for the system were reduced;
* productivity was improved.

These factors helped to increase the rate of production and to reduce the cost per pound of the materials which were processed.

TECHNOLOGY OPPORTUNITIES

The mobile tire shredding system is on the market and the company will manufacture the equipment to meet customer requirements.

Shred-Tech systems may be used in shredding and sorting of many types of materials and used in a number of ways. For example, they may be used in the mining of old landfill sites or an entrepreneur may take a mobile shredder around to smaller tire or other waste storage sites and process the materials right there.

Shred-Tech has the largest sales of any company in its industry. Global recognition has come after meeting the needs of many organizations such as Hitachi, BASF Corporation, Browning Ferris Industries (BFI), International Business Machines (IBM) Northern Telecom, Lever Brothers, the United States Treasury Department and the United States Navy.

PARTNERSHIP IN POLLUTION PREVENTION AND RESOURCE CONSERVATION

The pilot phase of the development of this technology was partially funded by the Ontario Ministry of Environment and Energy.

The Ministry of Environment and Energy assists Ontario companies to develop and implement new technologies that will help them:

- reduce, reuse and recycle solid waste;
- effectively remediate historic pollution and destroy hazardous contaminants;
- reduce or eliminate liquid effluent and gaseous emissions;
- use energy and water more efficiently.

Companies which supply equipment and services may benefit from the information provided on technologies identified for business development.

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TECHNOLOGY DESCRIPTION

The mobile tire shredding system has the following standard features:

ST-800 Shredder	Cutting chamber: 75 inches x 43 inches Thirty-two, two-inch wide, rebuildable cast cutting knives Knife tip cutting force of 224,000 pounds
Capacity	2,500 tires/hour - primary shred 1,000 tires/ hour - two inch minus
Drives	2 MA-400 Hagglund's hydraulic motors 2 P-24 Denison pumps
Diesel hydraulic power unit	500 HP diesel motor 250 gallon fuel reservoir Closed loop hydraulic system Variable speed hydraulic drive
Hydraulic knuckleboom loader with operator's cabin	1,000 pounds. capacity at 28-foot reach Lift system to elevate cab to working position of 17 feet Complete system controls Hydraulic stabilizers
Classifier 2 inch minus	Compact disc-type classifier Easily converted for single pass 36 inches wide x 12 feet long
Return drum	96 inch diameter x 18 inch wide Variable speed hydraulic drive
Conveyors	Stowable conveyor system Hydraulic drive
Transport trailer	Length: 48 feet Width: 8 feet Triple axle

MINISTRY OF ENVIRONMENT AND ENERGY PROGRAMS

For information on Ministry of Environment and Energy assistance to industry, please contact the Industry Conservation Branch at (416) 327-1492, Fax (416) 327-1261

This project profile was prepared and published as a public service by the Ontario Ministry of Environment and Energy. Its purpose is to transfer information to Ontario companies about new environmental technologies.

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